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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

MARC SPITZER, Chairman  
WILLIAM A. MUNDELL  
JEFF HATCH-MILLER  
MIKE GLEASON  
KRISTIN K. MAYES

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Arizona Corporation Commission

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IN THE MATTER OF THE APPLICATION OF  
ARIZONA PUBLIC SERVICE COMPANY FOR A  
HEARING TO DETERMINE THE FAIR VALUE  
OF THE UTILITY PROPERTY OF THE  
COMPANY FOR RATEMAKING PURPOSES, TO  
FIX A JUST AND REASONABLE RATE OF  
RETURN TEHREON, TO APROVE RATE  
SCHEDULES DESIGNED TO DEVELOP SUCH  
RETURN, AND FOR APPROVAL OF  
PURCHASED POWER CONTRACT.

Docket No. E-01345A-03-0437

NOTICE OF FILING  
STAFF RESPONSE TO REQUEST  
FOR ANALYSIS OF HOW  
THE VARIOUS PROPOSALS  
FOR APS RATES WILL IMPACT  
AN AVERAGE CUSTOMER BILL

Commission Staff hereby gives Notice of Filing Staff Response to Request for Analysis of  
How the Various Proposals for APS Rates Will Impact an Average Customer Bill.

RESPECTFULLY SUBMITTED this 26th day of November, 2004.

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**Staff Response to Request for Analysis of How the Various  
Proposals for APS Rates Will Impact an Average Customer Bill**

Docket No. E-01345A-03-0437  
November 26, 2004

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## Summary

As requested by Commissioner Mayes, Staff has projected an average and median customer bill for an APS residential customer served on Schedule E-12, based on actual usage levels for June 2004. Staff also created variations and considered factors as requested by Commissioners Mundell and Gleason. In response to Commissioner Mayes request, Staff varied the volume and price of natural gas consumed by APS to investigate the impact of natural gas prices on APS' proposed Power Supply Adjustor (PSA) and customer bills. Application of the \$8.22 per MMBtu NYMEX February 2005 price to the APS Base Case natural gas volumes would result in a PSA rate of \$0.00381 per kWh, and a PSA rate impact of \$2.81 to an E-12 bill using 738 kWh. In this case the PSA rate approaches, but does not reach the \$0.004 per kWh band proposed for the PSA, so therefore, no PSA bank balance would accumulate. Application of the \$8.22 per MMBtu price to the 3 percent load growth scenario, with all growth being met through additional natural gas generation, results in the \$0.004 per kWh band being reached, so the PSA rate impact is \$2.95 on the customer bill, and a PSA bank balance of approximately \$67 million would be accumulated. For a number of reasons, including APS' substantial hedging of its 2005 natural gas supplies, **Staff believes that a more likely price scenario is the \$5.78 per MMBtu APS Base Case cost of natural gas. At this price and using the APS Base Case volumes, the resulting PSA rate would be \$0.00006 per kWh, resulting in a rate impact or \$0.04 on an E-12 residential customer using 738 kWh.** When the 3 percent load growth scenario volume is applied to the \$5.78 per MMBtu price, it results in a PSA Rate of \$0.00182 per kWh and a rate impact of \$1.34 on an average E-12 residential customer bill. Scenarios using the \$4.00 per MMBtu gas price show sizable E-12 customer bill decreases under both the APS Base Case volume and the 3 percent load growth volume, a decrease of \$1.97 and \$1.20 respectively. In summary, natural gas prices and volumes are an important factor in the PSA rate as contemplated in the proposed PSA as well as in the resulting customer bills, but a number of factors considerably reduce the impact of changes in natural gas prices and volumes on the proposed PSA and resulting customer bills.

## Description of Staff Approach

The basis for this analysis is the request from Commissioner Mayes for estimates of customer bills in April 2006, as contained in the "homework assignment" and follow up clarification sheet. Additionally, during the initial days of the hearing, Commissioner Mundell requested that actual 2003 and 2004 cost information be considered and Commissioner Gleason expressed an interest in looking at bands, where costs are increased or decreased by 10 or 20 percent. Both of these requests are addressed within the overall context of responding to the "homework assignment".

Staff received basic consumption and fuel and purchased power information from APS for the year 2003. This information provided the basis for analyzing the possible impacts of various factors on an average APS Schedule E-12 residential customer's bill. The first time the Power Supply Adjustor (PSA) rate will have its annual update will be

in 2006, with the new PSA rate being applicable to customer bills in April 2006. Many things that impact the PSA rate can and likely will change between the 2003 historical data and the actual 2005 data which would be used to calculate the new PSA rate for April 2006. Staff has made a variety of assumptions in creating its projections of consumption, fuel and purchased power costs, and other inputs for the PSA. Appendix A discusses these assumptions in more detail. To summarize briefly, Staff ran a set of 15 scenarios for both the average (738 kwh) and median (460 kwh) June 2004 residential consumption, varying the cost of natural gas and the volume of natural gas burned by APS to test the sensitivity of changes in APS' natural gas supply in relation to what a residential customer would see in their bill. Gas costs were varied to include the APS base case cost of \$5.78 per MMBtu, the \$8.22 NYMEX scenario, the \$8.22 NYMEX scenario adjusted for basin differentials, a \$4.00 per MMBtu scenario, and a \$10.00 per MMBtu scenario. Gas volumes were varied by using the gas volume contained in the APS base case, a doubling of gas volumes from the APS base case, and a case where load growth is assumed to be 3 percent annually and all the load growth is met by natural gas fired generation. The variations of these five gas cost possibilities and these three gas volume possibilities provide the fifteen scenarios. Admittedly, some of these cost and volume scenarios may not be likely to occur, but inclusion of them is helpful in reviewing the potential impact of natural gas generation in a wide spectrum of cases.

These scenarios were run for all of the seven rate proposals listed in the request for this analysis: Today, APS Original Without Adjustors, APS Original With Adjustors, RUCO Original, Staff Original, Settlement Without Adjustors, and Settlement With Adjustors.

Staff also made estimates of what the various adjustor mechanisms would be and included these estimates in calculating the potential customer bills under the various scenarios. In addition to the PSA calculations, Staff made estimates of the CRCC, TCA, EPS, and DSM adjustor amounts. The RCDAC was not considered because it does not apply to residential customers (except possibly in the case of a very large aggregation of residential customers). Staff also made an adjustment to the customer bill calculations to reflect the changing way in which franchise fees would be assessed. Appendix B discusses in greater detail how the various adjustor rates were estimated and how the franchise fee issue was addressed.

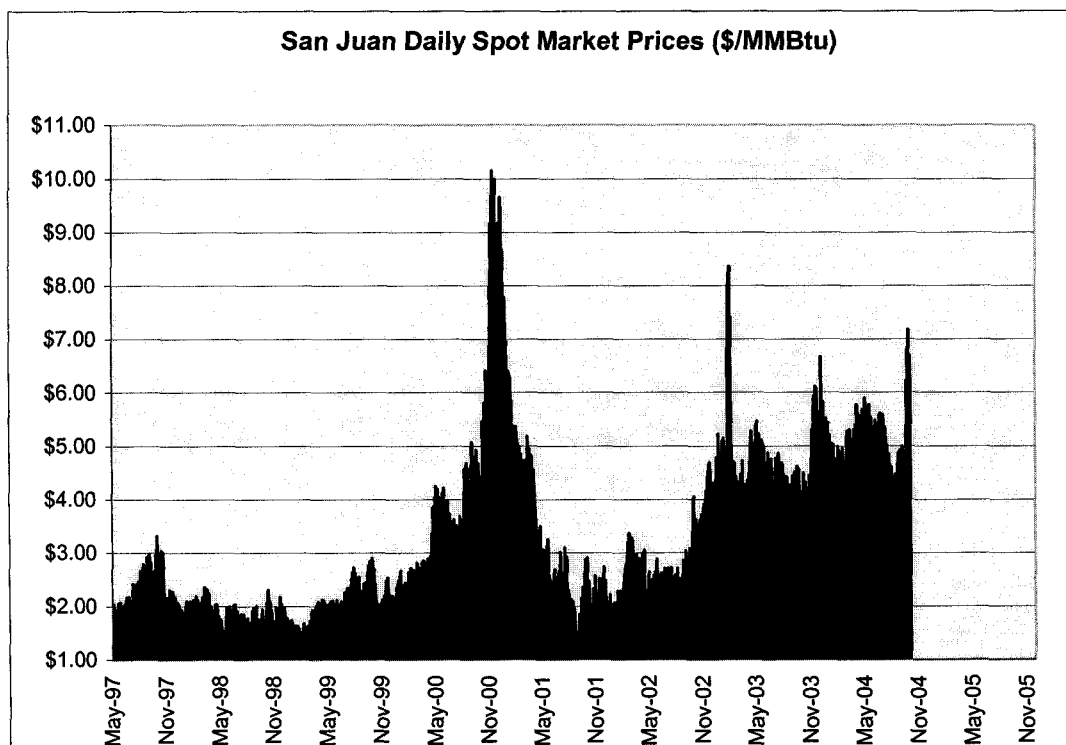
The Staff Findings section below will show the results of the various scenarios, with Appendix C containing the details of the PSA bank balance calculations for each scenario.

It is worthwhile to briefly discuss APS' gas procurement activities as they relate to this bill estimation exercise. Generally speaking APS buys natural gas in a similar fashion to other Arizona gas buyers, subject to APS' specific needs and circumstances. Virtually all of APS' gas is sourced from the San Juan supply basin in northwest New Mexico and the Permian supply basin in west Texas. San Juan gas is generally preferred, as it typically comes at a lower price than Permian gas. APS' natural gas supplies are delivered via the El Paso Natural Gas Company (El Paso) interstate pipeline system



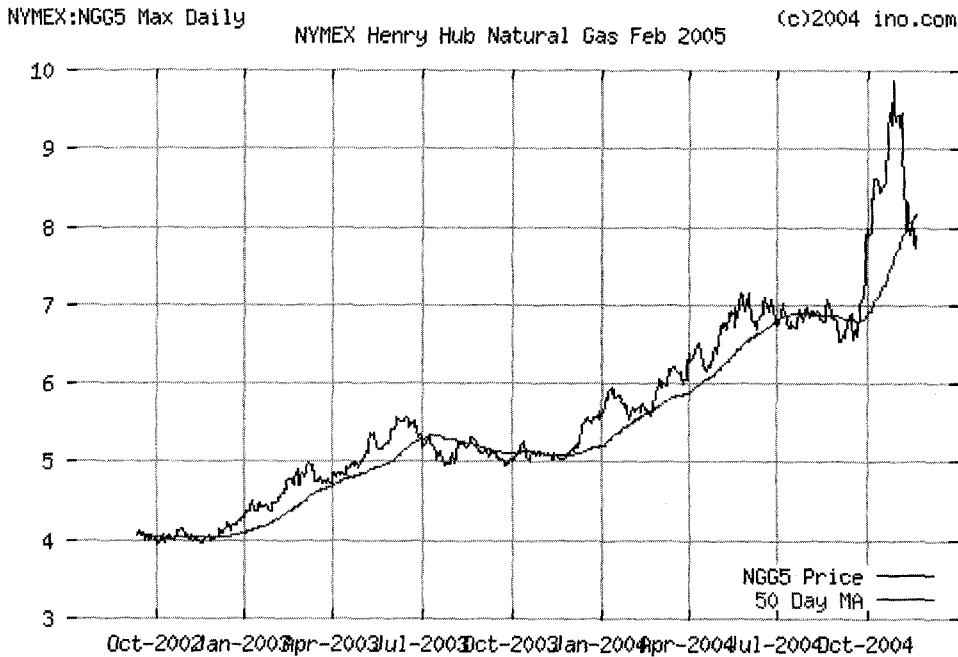
under a variety of pipeline capacity contract rights which are the result of pipeline capacity allocation proceedings at the Federal Energy Regulatory Commission (FERC) in recent years. Within these contract rights, along with any other pipeline services (such as interruptible service or release capacity) which APS may acquire, APS' natural gas supplies are delivered to its electric generation units. The cost and mix of APS' pipeline capacity portfolio will likely change over time due to changing needs; FERC actions; changing market conditions; possible new access to pipelines, supply sources, and storage facilities; and other factors. For example, if the Kinder Morgan Silver Canyon pipeline project is actually constructed, APS' capacity rights on that pipeline, pre-approved by the Commission in Decision Number 67239 (September 15, 2004), would change the nature of APS' supply portfolio and resulting costs.

Shown below is a chart of daily spot market prices in the San Juan basin in recent years.



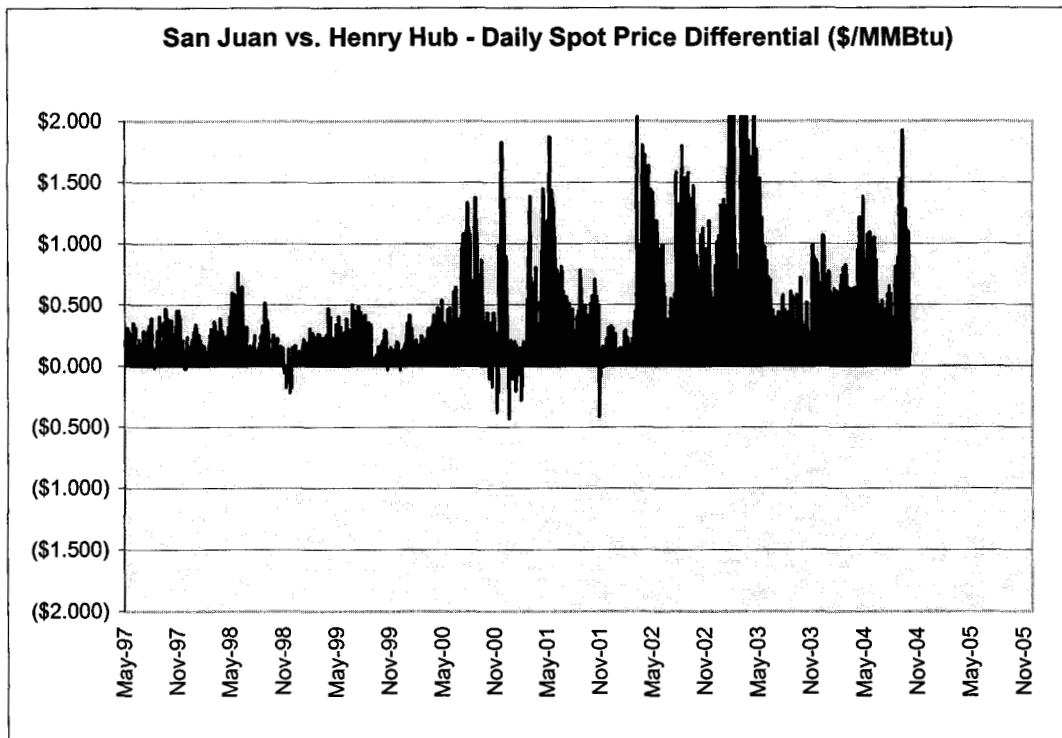
Source: Gas Daily

NYMEX futures prices, such as the \$8.22 per MMBtu price being used as the basis for some of the scenarios contained in this study, are useful to consider, as they are a source of information regarding market expectations in the future. However, the price of a given month's futures prices can and does vary significantly over time as market conditions and expectations change. Shown below is a chart of the February 2005 NYMEX natural gas future price over time as well as the 50 day moving average.



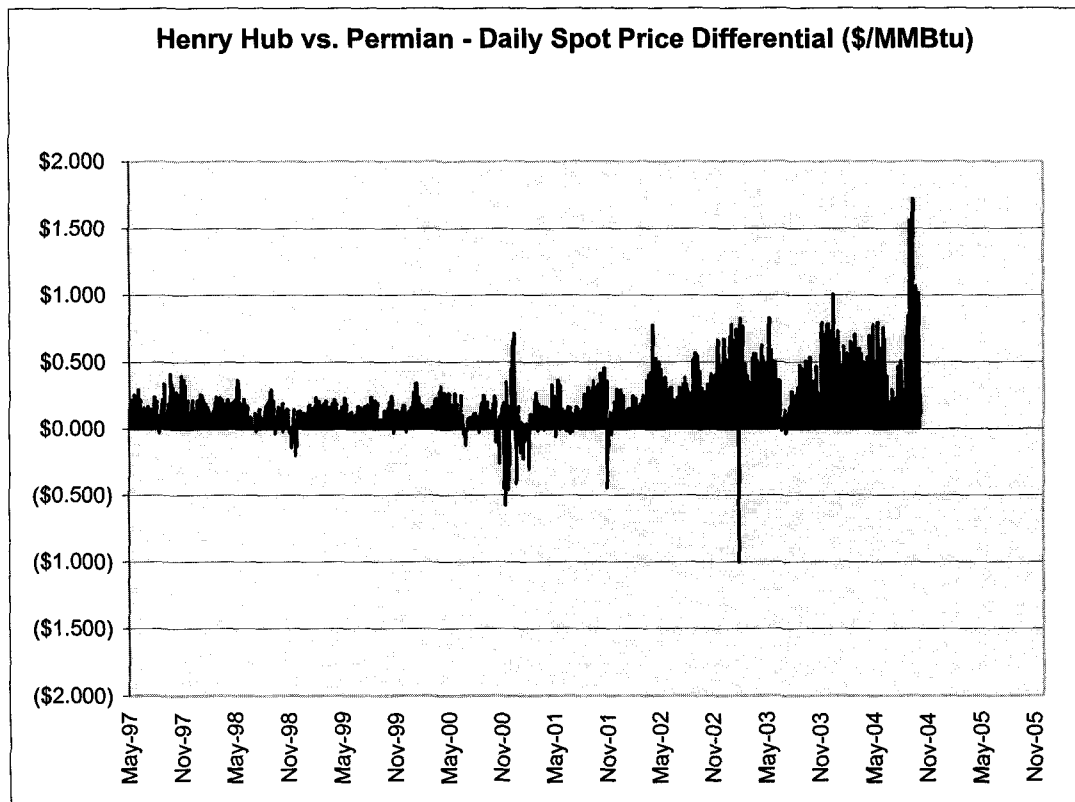
NYMEX futures are based upon physical deliveries at the Henry Hub, a location in Louisiana where five major pipelines come together. Given the location of the Henry Hub and the nature of the national pipeline network, it is highly unlikely that Henry Hub gas would actually be physically delivered to Arizona. Henry Hub prices are heavily influenced by eastern and midwestern market conditions and are typically higher than prices in both the San Juan and Permian basins where APS buys its natural gas. Further, Henry Hub prices tend to be more volatile than the natural gas supplies acquired by APS, particularly San Juan supplies.

The chart below compares Henry Hub and San Juan spot market prices. A positive number indicates that Henry Hub prices are higher than San Juan prices.



Source: Gas Daily

The chart below shows Permian basin spot market prices in comparison to Henry Hub spot market prices, with a positive number indicating that Henry Hub prices are higher than Permian prices.



Source: Gas Daily

The prices paid in the San Juan and Permian basins are significantly different than Henry Hub prices, though the differential varies over time. While NYMEX futures prices are a useful reference point, their use must be tempered by a recognition of the differences between pricing at the Henry Hub and pricing in the locations which APS sources its natural gas from. Appendix A contains an explanation of the adjustment Staff made to the \$8.22 per MMBtu NYMEX price, reducing it to \$7.60 per MMBtu, to be more reflective of Arizona gas supply prices.

### Staff Findings

While a wide variety of assumptions had to be made to create these estimates of April 2006 residential customer bills for customers on Schedule E-12, this exercise nevertheless provides some insight into the impact of natural gas prices and other factors on the change in customer bills. This discussion will primarily focus on the scenarios

showing today's rates and rates under the settlement with adjustors, since a comparison of these two scenarios is the most apt to reflect what a current customer might see in changes from current to future APS rates as proposed in the Settlement.

Regarding the five gas price projections used in calculating these scenarios, it should be noted that some price projections are much more likely to be reflective of actual circumstances in the near future than others. With the caveat that natural gas prices are notoriously unpredictable, Staff believes that the most likely of the five price scenarios is the \$5.78 per MMBtu scenario, with the \$7.60 scenario next most likely. The \$4.00 per MMBtu scenario illustrates what could happen with a warm winter dampening natural gas demand at a time when storage facilities are at record high inventories. Natural gas prices have been both high and volatile now for most of the last 4-5 years and industry projections show continued high prices and significant volatility in the near future. However, there is some amount of self-correction in the market, as high prices and volatility tend to result in demand destruction, particularly in the industrial sector. Despite high natural gas prices in recent years, the market has yet to experience annual average prices in the \$7.00 or \$8.00 per MMBtu range. Additionally, APS has already hedged a significant percentage of its natural gas supplies for 2005, approximately 60 percent. Such hedging substantially reduces the likelihood that APS' overall natural gas supply cost would approach the prices reflected in the \$10.00, \$8.22, and even \$7.60 price scenarios. For example, if APS has hedged 60 percent of its 2005 natural gas prices at \$5.00 per MMBtu, it would take an average price of \$11.50 per MMBtu for the other 40 percent of APS' natural gas supplies to reach an average annual price of \$7.60 per MMBtu in 2005. A market price averaging \$11.50 per MMBtu in 2005 would far exceed what the United States natural gas markets have seen during any recent time period, let alone over a twelve month period. Any additional hedging APS does for 2005 natural gas supplies would have a further dampening effect on the likely average natural gas price for APS in 2005.

The three variations on natural gas volumes used by APS are to use the base case APS consumption, which is the 2003 number provided in APS' base case, a doubling of natural gas use by APS, and a three percent annual load growth for APS with all such growth being met by additional natural gas-fired generation. The doubled gas usage in 2005 is a highly unlikely gas usage scenario, but is included to demonstrate the impact which very large increases in natural gas consumption could have on the PSA. This scenario could be more reflective of what the PSA might look like further out in the future if natural gas continues to be the fuel which is relied upon for most or all future incremental electric generation additions. Staff believes that the 2003 base case is probably on the low end of what likely gas usage would be in 2005, with the three percent growth case probably representing somewhere on the high end of likely gas usage in 2005. Somewhere within the range of the base and three percent cases is a likely area of APS gas usage in the near future, based upon the current reliance on natural gas for new electric generation needs. It is worth noting that under the three percent load growth scenario with all growth being met with natural gas-fired generation, this would result in an approximately one third increase in natural gas consumption by APS in the two year period from 2003 to 2005.

Regarding the \$0.004 per kWh band on how much the PSA rate can change, it is worth noting that at the base case sales level, approximately \$100,000,000 will be recovered by the PSA rate being reset and as sales increase over time, that amount which would be recovered within the \$0.004 per kWh band will increase. At current levels the \$100,000,000 amount would equal almost 20 percent of APS' net fuel and purchased power costs. For the 738 kWh average usage customer, their monthly bill would reflect a PSA impact of \$2.95 if the \$0.004 per kWh band is reached in resetting the PSA rate. No additional impact is possible from the PSA on an annual basis, outside a temporary PSA surcharge which the Commission would have to approve.

Given these discussions of what Staff believes are the more likely gas volume and gas price scenarios when the PSA rate is reset for the first time in April 2006, it appears very possible that there will be some level of undercollection in the PSA bank balance when the PSA rate is reset in April 2006, subject to a wide variety of uncertain variables that could move the balance either direction. However the balance level is likely to be relatively small and to have a relatively small impact on customer bills, especially in light of APS' significant level of gas price hedging already in place. In some examples, the effects of both the base rate increase and the other adjustors are noticeably larger than the effect of the PSA. For example, looking at the average usage scenarios, Scenario One, with the APS Base Case gas price and volumes shows a PSA impact on the customer bill of \$0.04. Scenario 11, with the APS Base Case price and 3 percent load growth, shows a PSA impact on the customer bill of \$1.34, which is slightly larger than the impact of the other adjustors, but still smaller than the impact of the base rate increase.

The impact of the 90/10 split is of note in these scenarios. For example, in the previously referenced Scenario 11, application of the 90/10 split saves ratepayers approximately \$5.4 million which absent the 90/10 sharing would have been recovered through a higher PSA rate.

For the rate proposals below, only two, APS Original With Adjustors and Settlement with Adjustors vary between scenarios, as these are the only two which use the PSA rate, which varies depending upon natural gas cost and volumes. The other five rate proposals reflect the same base rate total and final bill through all 15 scenarios in each part. The 15 scenarios using June average usage are shown in Part A, and then the 15 scenarios using June median usage are shown in Part B.

#### *Response to Request by Commissioner Mundell*

Commissioner Mundell requested the parties, as part of the homework exercise, to look at the actual 2003 and 2004 fuel costs in assessing possible impacts on customers bills of the PSA. Staff contacted APS regarding this information and APS indicated that its average cost for the most recent 12 months available, October 2003 through September 2004, was \$0.021224 per kwh. A comparison of this number with the proposed base cost of fuel and purchased power of \$0.020743 per kwh shows that this recent cost information represents a 2.32 percent increase over the average cost reflected

in the proposed base cost of fuel and purchased power. If this 2.32 percent increase were applied to the \$524.6 million net fuel and purchased power cost total for 2003 used in calculating the base cost of fuel and purchased power, this would result in an increase of approximately \$12 million in annual fuel costs, to approximately \$536.8 million. Given the large amount of money APS spends annually on fuel and purchased power and the potential significant variation in these costs from year to year due to a variety of factors, the 2.32 percent difference between the costs used in calculating the proposed base cost of fuel and purchased power and the latest 12 months of available fuel costs is relatively minor.

*Response to Request by Commissioner Gleason*

Commissioner Gleason expressed an interest in looking at the impact of a 10 or 20 percent increase or decrease in the cost of natural gas for APS. Working off the \$5.78 per MMBtu cost of gas contained in APS' base case, a 10 percent increase would result in a price of \$6.36 per MMBtu and a 20 percent increase would result in a price of \$6.94 per MMBtu. A decrease of 10 percent would result in a price of \$5.20 per MMBtu and a decrease of 20 percent would result in a price of \$4.62 per MMBtu. In comparing these price changes with the five price scenarios considered in the homework assignment, all of these prices fall well within the price scenarios which use \$4.00 per MMBtu and \$7.60 per MMBtu, so those scenarios can be looked at as further percentage price change scenarios. By comparison, the \$4.00 per MMBtu price scenario reflects a 30.8 percent decrease in the natural gas price, while the \$7.60 per MMBtu price scenario represents a 31.5 percent increase in the natural gas price. Therefore, as a general rule of thumb, the 10 percent and 20 percent increases would result in approximately one-third and two-thirds of the increase shown in the \$7.60 price scenario and the 10 percent and 20 percent decreases would show approximately one-third and two-thirds of the decreases shown in the \$4.00 per MMBtu scenario. Using the APS Base Case gas volume, the table below shows the impact which a 10 or 20 percent change in price would have on the annual total fuel and purchased power cost for APS.

Gas Price Variation	Price per MMBtu	Total Annual Gas Cost	Total Annual Fuel and Purchased Power Cost	Percent Change in Total Fuel Cost from APS Base Case
APS Base Case	\$5.78	\$248,400,000	\$524,600,000	-
10% increase	\$6.36	\$273,200,000	\$549,400,000	+4.7%
20% increase	\$6.94	\$298,100,000	\$574,300,000	+9.5%
10% decrease	\$5.20	\$223,600,000	\$499,800,000	-4.7%
20% decrease	\$4.62	\$198,700,000	\$474,900,000	-9.5%

## Part A: April 2006 Customers Bills – June Average Usage Scenarios

This set of scenarios is based upon average June 2004 consumption by residential customers served on Schedule E-12.

Average Usage Scenario One							
Gas Price: APS Base Case of \$5.78 Gas Volume: APS Base Case							
Annual Gas Volume: 42,985,000 MMBtu, Annual Gas Cost: \$248,400,000							
Annual Net Fuel and Purchased Power Costs: \$524,600,000, PSA Rate: \$0.00006 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$0.04	\$0.00	\$0.00	\$0.00	\$0.04
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$77.17	\$69.33	\$68.67	\$73.65	\$74.56
Franchise Fee	\$1.02	\$1.40	\$1.41	\$1.27	\$1.26	\$1.35	\$1.36
Final Bill	\$72.10	\$77.66	\$78.58	\$70.59	\$69.93	\$75.00	\$75.92
% Change in Final Bill From Today		7.7%	9.0%	-2.1%	-3.0%	4.0%	5.3%

Average Usage Scenario Two							
Gas Price: \$8.22 per MMBtu (2-05 NYMEX) Gas Volume: APS Base Case							
Annual Gas Volume: 42,985,000 MMBtu, Annual Gas Cost: \$353,300,000							
Annual Net Fuel and Purchased Power Costs: \$629,500,000, PSA Rate: \$0.00381 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$2.81	\$0.00	\$0.00	\$0.00	\$2.81
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$79.93	\$69.33	\$68.67	\$73.65	\$77.32
Franchise Fee	\$1.02	\$1.40	\$1.46	\$1.27	\$1.26	\$1.35	\$1.42
Final Bill	\$72.10	\$77.66	\$81.40	\$70.59	\$69.93	\$75.00	\$78.74
% Change in Final Bill From Today		7.7%	12.9%	-2.1%	-3.0%	4.0%	9.2%

Average Usage Scenario Three							
Gas Price: \$8.22 per MMBtu Adjusted to AZ prices (to \$7.60) Gas Volume: APS Base Case							
Annual Gas Volume: 42,985,000 MMBtu, Annual Gas Cost: \$326,700,000							
Annual Net Fuel and Purchased Power Costs: \$602,900,000, PSA Rate: \$0.00286 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$2.11	\$0.00	\$0.00	\$0.00	\$2.11
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$71.09	\$76.26	\$79.23	\$69.33	\$68.67	\$73.65	\$76.62
Franchise Fee	\$1.02	\$1.40	\$1.45	\$1.27	\$1.26	\$1.35	\$1.40
Final Bill	\$72.10	\$77.66	\$80.68	\$70.59	\$69.93	\$75.00	\$78.03
% Change in Final Bill From Today		7.7%	11.9%	-2.1%	-3.0%	4.0%	8.2%



Average Usage Scenario Four							
Gas Price: \$4.00 per MMBtu Gas Volume: APS Base Case							
Annual Gas Volume: 42,985,000 MMBtu, Annual Gas Cost: \$171,900,000							
Annual Net Fuel and Purchased Power Costs: \$448,100,000, PSA Rate: -\$0.00267 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	-\$1.97	\$0.00	\$0.00	\$0.00	-\$1.97
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$75.15	\$69.33	\$68.67	\$73.65	\$72.54
Franchise Fee	\$1.01	\$1.40	\$1.38	\$1.27	\$1.26	\$1.35	\$1.33
Final Bill	\$71.59	\$77.66	\$76.53	\$70.59	\$69.93	\$75.00	\$73.87
% Change in Final Bill From Today		7.7%	6.1%	-2.1%	-3.0%	4.0%	2.4%

Average Usage Scenario Five							
Gas Price: \$10.00 per MMBtu Gas Volume: APS Base Case							
Annual Gas Volume: 42,985,000 MMBtu, Annual Gas Cost: \$429,900,000							
Annual Net Fuel and Purchased Power Costs: \$706,100,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$64,050,904							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$2.95	\$0.00	\$0.00	\$0.00	\$2.95
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$80.07	\$69.33	\$68.67	\$73.65	\$77.47
Franchise Fee	\$1.01	\$1.40	\$1.47	\$1.27	\$1.26	\$1.35	\$1.42
Final Bill	\$71.59	\$77.66	\$81.54	\$70.59	\$69.93	\$75.00	\$78.88
% Change in Final Bill From Today		7.7%	13.1%	-2.1%	-3.0%	4.0%	9.4%

Average Usage Scenario Six							
Gas Price: APS Base Case of \$5.78 Gas Volume: APS Base Case Doubled							
Annual Gas Volume: 85,970,000 MMBtu, Annual Gas Cost: \$496,800,000							
Annual Net Fuel and Purchased Power Costs: \$773,100,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$21,486,850							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$2.95	\$0.00	\$0.00	\$0.00	\$2.95
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$80.07	\$69.33	\$68.67	\$73.65	\$77.47
Franchise Fee	\$1.01	\$1.40	\$1.47	\$1.27	\$1.26	\$1.35	\$1.42
Final Bill	\$71.59	\$77.66	\$81.54	\$70.59	\$69.93	\$75.00	\$78.88
% Change in Final Bill From Today		7.7%	13.1%	-2.1%	-3.0%	4.0%	9.4%

Average Usage Scenario Seven							
Gas Price: \$8.22 per MMBtu (2-05 NYMEX) Gas Volume: APS Base Case Doubled							
Annual Gas Volume: 85,970,000 MMBtu, Annual Gas Cost: \$706,700,000							
Annual Net Fuel and Purchased Power Costs: \$982,900,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$210,306,850							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$2.95	\$0.00	\$0.00	\$0.00	\$2.95
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$80.07	\$69.33	\$68.67	\$73.65	\$77.47
Franchise Fee	\$1.01	\$1.40	\$1.47	\$1.27	\$1.26	\$1.35	\$1.42
Final Bill	\$71.59	\$77.66	\$81.54	\$70.59	\$69.93	\$75.00	\$78.88
% Change in Final Bill From Today		7.7%	13.1%	-2.1%	-3.0%	4.0%	9.4%

Average Usage Scenario Eight							
Gas Price: \$8.22 per MMBtu Adjusted to AZ Prices (\$7.60) Gas Volume: APS Base Case Doubled							
Annual Gas Volume: 85,970,000 MMBtu, Annual Gas Cost: \$653,400,000							
Annual Net Fuel and Purchased Power Costs: \$929,600,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$162,336,850							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$2.95	\$0.00	\$0.00	\$0.00	\$2.95
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$80.07	\$69.33	\$68.67	\$73.65	\$77.47
Franchise Fee	\$1.01	\$1.40	\$1.47	\$1.27	\$1.26	\$1.35	\$1.42
Final Bill	\$71.59	\$77.66	\$81.54	\$70.59	\$69.93	\$75.00	\$78.88
% Change in Final Bill From Today		7.7%	13.1%	-2.1%	-3.0%	4.0%	9.4%

Average Usage Scenario Nine							
Gas Price: \$4.00 per MMBtu Gas Volume: APS Base Case Doubled							
Annual Gas Volume: 85,970,000 MMBtu, Annual Gas Cost: \$343,800,000							
Annual Net Fuel and Purchased Power Costs: \$620,100,000, PSA Rate: \$0.00009 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$0.07	\$0.00	\$0.00	\$0.00	\$0.07
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$77.19	\$69.33	\$68.67	\$73.65	\$74.58
Franchise Fee	\$1.01	\$1.40	\$1.41	\$1.27	\$1.26	\$1.35	\$1.36
Final Bill	\$71.59	\$77.66	\$78.60	\$70.59	\$69.93	\$75.00	\$75.94
% Change in Final Bill From Today		7.7%	9.0%	-2.1%	-3.0%	4.0%	5.3%

Average Usage Scenario Ten							
Gas Price: \$10.00 per MMBtu Gas Volume: APS Base Case Doubled							
Annual Gas Volume: 85,970,000 MMBtu, Annual Gas Cost: \$859,700,000							
Annual Net Fuel and Purchased Power Costs: \$1,135,900,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$348,006,850							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$2.95	\$0.00	\$0.00	\$0.00	\$2.95
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$80.07	\$69.33	\$68.67	\$73.65	\$77.47
Franchise Fee	\$1.01	\$1.40	\$1.47	\$1.27	\$1.26	\$1.35	\$1.42
Final Bill	\$71.59	\$77.66	\$81.54	\$70.59	\$69.93	\$75.00	\$78.88
% Change in Final Bill From Today		7.7%	13.1%	-2.1%	-3.0%	4.0%	9.4%

Average Usage Scenario Eleven							
Gas Price: APS Base Case of \$5.78 Gas Volume: APS Base Case + 3 Percent Annual Load Growth							
Annual Gas Volume: 57,527,000 MMBtu, Annual Gas Cost: \$332,500,000							
Annual Net Fuel and Purchased Power Costs: \$608,700,000, PSA Rate: \$0.00182 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$1.34	\$0.00	\$0.00	\$0.00	\$1.34
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$78.47	\$69.33	\$68.67	\$73.65	\$75.86
Franchise Fee	\$1.01	\$1.40	\$1.44	\$1.27	\$1.26	\$1.35	\$1.39
Final Bill	\$71.59	\$77.66	\$79.90	\$70.59	\$69.93	\$75.00	\$77.24
% Change in Final Bill From Today		7.7%	10.8%	-2.1%	-3.0%	4.0%	7.1%

Average Usage Scenario Twelve							
Gas Price: \$8.22 per MMBtu (2-05 NYMEX) Gas Volume: APS Base Case + 3 Percent Annual Load Growth							
Annual Gas Volume: 57,527,000 MMBtu, Annual Gas Cost: \$472,900,000							
Annual Net Fuel and Purchased Power Costs: \$749,100,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$67,960,956							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$2.95	\$0.00	\$0.00	\$0.00	\$2.95
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$80.07	\$69.33	\$68.67	\$73.65	\$77.47
Franchise Fee	\$1.01	\$1.40	\$1.47	\$1.27	\$1.26	\$1.35	\$1.42
Final Bill	\$71.59	\$77.66	\$81.54	\$70.59	\$69.93	\$75.00	\$78.88
% Change in Final Bill From Today		7.7%	13.1%	-2.1%	-3.0%	4.0%	9.4%

Average Usage Scenario Thirteen							
Gas Price: \$8.22 per MMBtu Adjusted to AZ prices (to \$7.60) Gas Volume: APS Base Case + 3 Percent Annual Load Growth							
Annual Gas Volume: 57,527,000 MMBtu, Annual Gas Cost: \$437,200,000							
Annual Net Fuel and Purchased Power Costs: \$713,400,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$35,830,956							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$2.95	\$0.00	\$0.00	\$0.00	\$2.95
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$80.07	\$69.33	\$68.67	\$73.65	\$77.47
Franchise Fee	\$1.01	\$1.40	\$1.47	\$1.27	\$1.26	\$1.35	\$1.42
Final Bill	\$71.59	\$77.66	\$81.54	\$70.59	\$69.93	\$75.00	\$78.88
% Change in Final Bill From Today		7.7%	13.1%	-2.1%	-3.0%	4.0%	9.4%

Average Usage Scenario Fourteen							
Gas Price: \$4.00 per MMBtu Gas Volume: APS Base Case + 3 Percent Annual Load Growth							
Annual Gas Volume 57,527,000 MMBtu, Annual Gas Cost: \$230,100,000							
Annual Net Fuel and Purchased Power Costs: \$506,300,000, PSA Rate: -\$0.00163 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	-\$1.20	\$0.00	\$0.00	\$0.00	-\$1.20
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$75.92	\$69.33	\$68.67	\$73.65	\$73.31
Franchise Fee	\$1.01	\$1.40	\$1.39	\$1.27	\$1.26	\$1.35	\$1.34
Final Bill	\$71.59	\$77.66	\$77.31	\$70.59	\$69.93	\$75.00	\$74.65
% Change in Final Bill From Today		7.7%	7.2%	-2.1%	-3.0%	4.0%	3.5%

Average Usage Scenario Fifteen							
Gas Price: \$10.00 per MMBtu Gas Volume: APS Base Case + 3 Percent Annual Load Growth							
Annual Gas Volume 57,527,000 MMBtu, Annual Gas Cost: \$575,300,000							
Annual Net Fuel and Purchased Power Costs: \$851,500,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$160,120,956							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$70.74	\$76.26	\$76.26	\$68.73	\$67.88	\$73.65	\$73.65
% Change in Base Rates From Today		7.8%	7.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.25	\$0.25	\$0.25	\$0.00	\$0.25
PSA	\$0	\$0.00	\$2.95	\$0.00	\$0.00	\$0.00	\$2.95
TCA	\$0	\$0.00	\$0.07	\$0.00	\$0.07	\$0.00	\$0.07
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.19	\$0.00	\$0.13	\$0.00	\$0.19
Subtotal	\$70.58	\$76.26	\$80.07	\$69.33	\$68.67	\$73.65	\$77.47
Franchise Fee	\$1.01	\$1.40	\$1.47	\$1.27	\$1.26	\$1.35	\$1.42
Final Bill	\$71.59	\$77.66	\$81.54	\$70.59	\$69.93	\$75.00	\$78.88
% Change in Final Bill From Today		7.7%	13.1%	-2.1%	-3.0%	4.0%	9.4%

## Part B: April 2006 Customers Bills – June Median Usage Scenarios

The median June 2004 E-12 residential customer usage is 460 kwh. Median usage is not a usage measure that is typically considered in the review of energy company charges. The same set of 15 scenarios has been run for this usage level. The median usage scenarios show the same general pattern in relation to natural gas price and volume impacts. The main difference is that rate base total and final bill differences from Today's rates are more heavily influenced by differences in the customer charge and the per kwh charge in the first 400 kwh block, as would be expected when looking at customers with a lower usage level.

Median Usage Scenario Sixteen							
Gas Price: APS Base Case of \$5.78 Gas Volume: APS Base Case							
Annual Gas Volume: 42,985,000 MMBtu, Annual Gas Cost: \$248,400,000							
Annual Net Fuel and Purchased Power Costs: \$524,600,000, PSA Rate: \$0.00006 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCC Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$0.03	\$0.00	\$0.00	\$0.00	\$0.03
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$52.94	\$41.86	\$41.47	\$44.31	\$45.00
Franchise Fee	\$0.61	\$0.96	\$0.97	\$0.77	\$0.76	\$0.81	\$0.82
Final Bill	\$43.52	\$53.20	\$53.91	\$42.62	\$42.23	\$45.12	\$45.82
% Change in Final Bill From Today		22.2%	23.9%	-2.1%	-3.0%	3.7%	5.3%

Median Usage Scenario Seventeen							
Gas Price: \$8.22 per MMBtu (2-05 NYMEX) Gas Volume: APS Base Case							
Annual Gas Volume: 42,985,000 MMBtu, Annual Gas Cost: \$353,300,000							
Annual Net Fuel and Purchased Power Costs: \$629,500,000, PSA Rate: \$0.00381 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCC Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$1.75	\$0.00	\$0.00	\$0.00	\$1.75
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$54.66	\$41.86	\$41.47	\$44.31	\$46.73
Franchise Fee	\$0.61	\$0.96	\$1.00	\$0.77	\$0.76	\$0.81	\$0.86
Final Bill	\$43.52	\$53.20	\$55.67	\$42.62	\$42.23	\$45.12	\$47.58
% Change in Final Bill From Today		22.2%	27.9%	-2.1%	-3.0%	3.7%	9.3%

Median Usage Scenario Eighteen							
Gas Price: \$8.22 per MMBtu Adjusted to AZ prices (to \$7.60) Gas Volume: APS Base Case							
Annual Gas Volume: 42,985,000 MMBtu, Annual Gas Cost: \$326,700,000							
Annual Net Fuel and Purchased Power Costs: \$602,900,000, PSA Rate: \$0.00286 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 738 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$1.32	\$0.00	\$0.00	\$0.00	\$1.32
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$54.23	\$41.86	\$41.47	\$44.31	\$46.29
Franchise Fee	\$0.61	\$0.96	\$0.99	\$0.77	\$0.76	\$0.81	\$0.85
Final Bill	\$43.52	\$53.20	\$55.22	\$42.62	\$42.23	\$45.12	\$47.14
% Change in Final Bill From Today		22.2%	26.9%	-2.1%	-3.0%	3.7%	8.3%

Median Usage Scenario Nineteen							
Gas Price: \$4.00 per MMBtu Gas Volume: APS Base Case							
Annual Gas Volume: 42,985,000 MMBtu, Annual Gas Cost: \$171,900,000							
Annual Net Fuel and Purchased Power Costs: \$448,100,000, PSA Rate: -\$0.00267 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	-\$1.23	\$0.00	\$0.00	\$0.00	-\$1.23
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$51.68	\$41.86	\$41.47	\$44.31	\$43.75
Franchise Fee	\$0.61	\$0.96	\$0.95	\$0.77	\$0.76	\$0.81	\$0.80
Final Bill	\$43.52	\$53.20	\$52.63	\$42.62	\$42.23	\$45.12	\$44.55
% Change in Final Bill From Today		22.2%	22.8%	-2.1%	-3.0%	3.7%	2.4%

Median Usage Scenario Twenty							
Gas Price: \$10.00 per MMBtu Gas Volume: APS Base Case							
Annual Gas Volume: 42,985,000 MMBtu, Annual Gas Cost: \$429,900,000							
Annual Net Fuel and Purchased Power Costs: \$706,100,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$64,050,904							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$1.84	\$0.00	\$0.00	\$0.00	\$1.84
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$54.75	\$41.86	\$41.47	\$44.31	\$46.82
Franchise Fee	\$0.61	\$0.96	\$1.00	\$0.77	\$0.76	\$0.81	\$0.86
Final Bill	\$43.52	\$53.20	\$55.75	\$42.62	\$42.23	\$45.12	\$47.67
% Change in Final Bill From Today		22.2%	28.1%	-2.1%	-3.0%	3.7%	9.5%

Median Usage Scenario Twenty-One							
Gas Price: APS Base Case of \$5.78 Gas Volume: APS Base Case Doubled							
Annual Gas Volume: 85,970,000 MMBtu, Annual Gas Cost: \$496,800,000							
Annual Net Fuel and Purchased Power Costs: \$773,100,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$21,486,850							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$1.84	\$0.00	\$0.00	\$0.00	\$1.84
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$54.75	\$41.86	\$41.47	\$44.31	\$46.82
Franchise Fee	\$0.61	\$0.96	\$1.00	\$0.77	\$0.76	\$0.81	\$0.86
Final Bill	\$43.52	\$53.20	\$55.75	\$42.62	\$42.23	\$45.12	\$47.67
% Change in Final Bill From Today		22.2%	28.1%	-2.1%	-3.0%	3.7%	9.5%

Median Usage Scenario Twenty-Two							
Gas Price: \$8.22 per MMBtu (2-05 NYMEX) Gas Volume: APS Base Case Doubled							
Annual Gas Volume: 85,970,000 MMBtu, Annual Gas Cost: \$706,700,000							
Annual Net Fuel and Purchased Power Costs: \$982,900,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$210,306,850							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$1.84	\$0.00	\$0.00	\$0.00	\$1.84
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$54.75	\$41.86	\$41.47	\$44.31	\$46.82
Franchise Fee	\$0.61	\$0.96	\$1.00	\$0.77	\$0.76	\$0.81	\$0.86
Final Bill	\$43.52	\$53.20	\$55.75	\$42.62	\$42.23	\$45.12	\$47.67
% Change in Final Bill From Today		22.2%	28.1%	-2.1%	-3.0%	3.7%	9.5%

Median Usage Scenario Twenty-Three							
Gas Price: \$8.22 per MMBtu Adjusted to AZ Prices (\$7.60) Gas Volume: APS Base Case Doubled							
Annual Gas Volume: 85,970,000 MMBtu, Annual Gas Cost: \$653,400,000							
Annual Net Fuel and Purchased Power Costs: \$929,600,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$162,336,850							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$1.84	\$0.00	\$0.00	\$0.00	\$1.84
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$54.75	\$41.86	\$41.47	\$44.31	\$46.82
Franchise Fee	\$0.61	\$0.96	\$1.00	\$0.77	\$0.76	\$0.81	\$0.86
Final Bill	\$43.52	\$53.20	\$55.75	\$42.62	\$42.23	\$45.12	\$47.67
% Change in Final Bill From Today		22.2%	28.1%	-2.1%	-3.0%	3.7%	9.5%

Median Usage Scenario Twenty-Four							
Gas Price: \$4.00 per MMBtu Gas Volume: APS Base Case Doubled							
Annual Gas Volume: 85,970,000 MMBtu, Annual Gas Cost: \$343,800,000							
Annual Net Fuel and Purchased Power Costs: \$620,100,000, PSA Rate: \$0.00009 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$0.04	\$0.00	\$0.00	\$0.00	\$0.04
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$52.95	\$41.86	\$41.47	\$44.31	\$45.02
Franchise Fee	\$0.61	\$0.96	\$0.97	\$0.77	\$0.76	\$0.81	\$0.82
Final Bill	\$43.52	\$53.20	\$53.92	\$42.62	\$42.23	\$45.12	\$45.84
% Change in Final Bill From Today		22.2%	23.9%	-2.1%	-3.0%	3.7%	5.3%

Median Usage Scenario Twenty-Five							
Gas Price: \$10.00 per MMBtu Gas Volume: APS Base Case Doubled							
Annual Gas Volume: 85,970,000 MMBtu, Annual Gas Cost: \$859,700,000							
Annual Net Fuel and Purchased Power Costs: \$1,135,900,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$348,006,850							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$1.84	\$0.00	\$0.00	\$0.00	\$1.84
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$54.75	\$41.86	\$41.47	\$44.31	\$46.82
Franchise Fee	\$0.61	\$0.96	\$1.00	\$0.77	\$0.76	\$0.81	\$0.86
Final Bill	\$43.52	\$53.20	\$55.75	\$42.62	\$42.23	\$45.12	\$47.67
% Change in Final Bill From Today		22.2%	28.1%	-2.1%	-3.0%	3.7%	9.5%

Median Usage Scenario Twenty-Six							
Gas Price: APS Base Case of \$5.78 Gas Volume: APS Base Case + 3 Percent Annual Load Growth							
Annual Gas Volume: 57,527,000 MMBtu, Annual Gas Cost: \$332,500,000							
Annual Net Fuel and Purchased Power Costs: \$608,700,000, PSA Rate: \$0.00182 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$0.84	\$0.00	\$0.00	\$0.00	\$0.84
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$53.75	\$41.86	\$41.47	\$44.31	\$45.81
Franchise Fee	\$0.61	\$0.96	\$0.98	\$0.77	\$0.76	\$0.81	\$0.84
Final Bill	\$43.52	\$53.20	\$54.73	\$42.62	\$42.23	\$45.12	\$46.85
% Change in Final Bill From Today		22.2%	25.8%	-2.1%	-3.0%	3.7%	7.2%



Median Usage Scenario Twenty-Seven							
Gas Price: \$8.22 per MMBtu (2-05 NYMEX) Gas Volume: APS Base Case + 3 Percent Annual Load Growth							
Annual Gas Volume: 57,527,000 MMBtu, Annual Gas Cost: \$472,900,000							
Annual Net Fuel and Purchased Power Costs: \$749,100,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$67,960,956							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$1.84	\$0.00	\$0.00	\$0.00	\$1.84
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$54.75	\$41.86	\$41.47	\$44.31	\$46.82
Franchise Fee	\$0.61	\$0.96	\$1.00	\$0.77	\$0.76	\$0.81	\$0.86
Final Bill	\$43.52	\$53.20	\$55.75	\$42.62	\$42.23	\$45.12	\$47.67
% Change in Final Bill From Today		22.2%	28.1%	-2.1%	-3.0%	3.7%	9.5%

Median Usage Scenario Twenty-Eight							
Gas Price: \$8.22 per MMBtu Adjusted to AZ prices (to \$7.60) Gas Volume: APS Base Case + 3 Percent Annual Load Growth							
Annual Gas Volume: 57,527,000 MMBtu, Annual Gas Cost: \$437,200,000							
Annual Net Fuel and Purchased Power Costs: \$713,400,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$35,830,956							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$1.84	\$0.00	\$0.00	\$0.00	\$1.84
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$54.75	\$41.86	\$41.47	\$44.31	\$46.82
Franchise Fee	\$0.61	\$0.96	\$1.00	\$0.77	\$0.76	\$0.81	\$0.86
Final Bill	\$43.52	\$53.20	\$55.75	\$42.62	\$42.23	\$45.12	\$47.67
% Change in Final Bill From Today		22.2%	28.1%	-2.1%	-3.0%	3.7%	9.5%

Median Usage Scenario Twenty-Nine							
Gas Price: \$4.00 per MMBtu Gas Volume: APS Base Case + 3 Percent Annual Load Growth							
Annual Gas Volume 57,527,000 MMBtu, Annual Gas Cost: \$230,100,000							
Annual Net Fuel and Purchased Power Costs: \$506,300,000, PSA Rate: -\$0.00163 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$0							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
Base Rate Total	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
% Change in Base Rates From Today		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	-\$0.75	\$0.00	\$0.00	\$0.00	-\$0.75
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
Subtotal	\$42.91	\$52.25	\$52.16	\$41.86	\$41.47	\$44.31	\$44.23
Franchise Fee	\$0.61	\$0.96	\$0.95	\$0.77	\$0.76	\$0.81	\$0.81
Final Bill	\$43.52	\$53.20	\$53.12	\$42.62	\$42.23	\$45.12	\$45.04
% Change in Final Bill From Today		22.2%	22.0%	-2.1%	-3.0%	3.7%	3.5%

Median Usage Scenario Thirty							
Gas Price: \$10.00 per MMBtu Gas Volume: APS Base Case + 3 Percent Annual Load Growth							
Annual Gas Volume 57,527,000 MMBtu, Annual Gas Cost: \$575,300,000							
Annual Net Fuel and Purchased Power Costs: \$851,500,000, PSA Rate: \$0.00400 per kWh							
Balancing Account after Application of \$0.004 per kWh band: \$160,120,956							
June Usage of 460 kWh	Today	APS Original W/O Adjustors	APS Original With Adjustors	RUCO Original	Staff Original	Settlement W/O Adjustors	Settlement With Adjustors
<b>Base Rate Total</b>	\$42.56	\$52.25	\$52.25	\$41.35	\$40.84	\$44.31	\$44.31
<b>% Change in Base Rates From Today</b>		22.8%	22.8%	-2.8%	-4.0%	4.1%	4.1%
CRCC	\$0	\$0.00	\$0.16	\$0.16	\$0.16	\$0.00	\$0.16
PSA	\$0	\$0.00	\$1.84	\$0.00	\$0.00	\$0.00	\$1.84
TCA	\$0	\$0.00	\$0.04	\$0.00	\$0.04	\$0.00	\$0.04
EPS	\$0.35	\$0.00	\$0.35	\$0.35	\$0.35	\$0.00	\$0.35
DSM	\$0	\$0.00	\$0.12	\$0.00	\$0.08	\$0.00	\$0.12
<b>Subtotal</b>	\$42.91	\$52.25	\$54.75	\$41.86	\$41.47	\$44.31	\$46.82
Franchise Fee	\$0.61	\$0.96	\$1.00	\$0.77	\$0.76	\$0.81	\$0.86
<b>Final Bill</b>	\$43.52	\$53.20	\$55.75	\$42.62	\$42.23	\$45.12	\$47.67
<b>% Change in Final Bill From Today</b>		22.2%	28.1%	-2.1%	-3.0%	3.7%	9.5%

## Appendix A: Staff Assumptions

This Appendix lists the assumptions that underlie the various scenarios as well as further discussion as needed.

1. The most basic assumption is that except for the limited variables which are adjusted from scenario to scenario, the system is assumed to be static. Of course in real life many variables can and will change, but modeling a wide variety of variable changes would be difficult, unwieldy, and in Staff's view is unnecessary to assess the general impact which variations in APS' natural gas supply portfolio would have on customer bills. Many of these variables which are assumed to be static are listed below.
2. APS' hedging of natural gas prices is not directly taken into consideration. However, to the extent APS had hedged its natural gas prices, it would be less likely that the high cost scenarios would reflect what could happen in the future, subject to the details of APS' hedging activities.
3. For the scenarios using the \$8.22 NYMEX value adjusted for basin differentials, a basic calculation was made to estimate the typical price differential between the Henry Hub, which is the basis for NYMEX futures, and the San Juan and Permian basins where APS buys natural gas. This was done by calculating the average differential between the basins for 2004 and then taking the average of those two numbers, assuming APS takes equal amounts of fuel from the San Juan and Permian basins. For daily spot market prices in 2004 as reported in Gas Daily, San Juan gas was typically \$0.71 per MMBtu cheaper than Henry Hub gas and Permian gas was typically \$0.53 per MMBtu cheaper than Henry Hub gas. The average of these two numbers is \$0.62 per MMBtu. This number is subtracted from \$8.22 to arrive at the \$7.60 per MMBtu price used in the gas price scenario reflected the \$8.22 NYMEX price adjusted for basin differentials.
4. It is assumed that there will be no changes in the cost of pipeline service from El Paso. There may not be significant changes in the cost of pipeline service through 2005, but with the pending El Paso rate proceeding in 2005 as well as other potential cost increases resulting from factors such as tighter balancing requirements, it seems likely that pipeline service costs will increase for APS in the future.
5. No modeling was done of how natural gas price changes would impact how APS manages its business including how various generating units are dispatched and possible shifting among fuel sources.
6. Future natural gas prices are unknown and projections of natural gas prices are notoriously inaccurate. A variety of uncertain factors, such as economic conditions, weather, and world petroleum markets, greatly impact natural gas prices both now and in the future. The variety of scenarios presented provides a spread of possible natural gas price cases.
7. There was no assessment of how much APS load may actually increase due to expanding demand for electricity from population and economic growth or decrease due to greater funding of energy-efficient demand side management efforts or other factors.
8. Staff's direct testimony does not contain specific rate element proposals for rate schedules, including rate schedule E-12, which is under consideration in this analysis.

Staff's direct testimony did contain a recommendation that residential rates be reduced by 4.04 percent. For purposes of this analysis, this 4.04 percent decrease is applied across all E-12 rate elements to provide an estimate of what E-12 rates would be under Staff's original case. Further, this 4.04 percent decrease was applied to Today's rates, so, as was done with Today's rates, the franchise fee was factored out of the rates for the purpose of calculating the base rate total. The franchise fee is later added back in as the final step in calculating the final customer bill. Franchise fees are discussed in more detail in Appendix B.

9. RUCO's direct testimony proposes a 2.84 percent decrease and indicates that residential customers should receive the same percentage decrease as other rate classes. So in a fashion similar to the application of Staff's 4.04 percent proposed decrease, the 2.84 percent decrease proposed by RUCO is applied evenly to all rate elements for Today's schedule E-12. And the franchise fee is also treated in the same fashion as previously described for Staff's original case. Franchise fees are discussed in more detail in Appendix B.
10. For the EPS, CRCC, DSM, TCA, and PSA adjustors, it is worthwhile to briefly discuss which are considered in each of the seven rate proposals considered, and why or why not.
  - A. Today's Rates - For the Today's rate proposal, only the \$0.35 EPS surcharge is included, as that is the only such adjustor or surcharge currently being applied in APS' rates.
  - B. APS Original W/O Adjustors - For APS Original W/O Adjustors, no adjustors or surcharges are applied, as the title of this rate proposal suggests.
  - C. APS Original W/Adjustors - All Adjustors are applied consistent with levels proposed in the Settlement and as discussed in Appendix B. It should be noted that APS' original proposal included the PSA, the TCA, the EPS, and the CRCC. It did not contemplate a DSM adjustor.
  - D. RUCO Original - In RUCO's original position, they were against the PSA, the TCA, and a DSM adjustor, so these were not included in the RUCO Original rate proposal. RUCO was in favor of the EPS and the CRCC (as proposed by APS), so these are included.
  - E. Staff Original - Staff originally opposed a PSA so that is not included in the Staff Original rate proposal. Staff included an EPS, CRCC, and TCA, so these are included. Staff supported up to \$4 million to be recovered through the DSM adjustor, so DSM funding at a \$4 million level recovered through the DSM adjustor is included.
  - F. Settlement W/O Adjustors - For Settlement W/O Adjustors, none of the adjustors is applied, as suggested by the title of this rate proposal.
  - G. Settlement W/Adjustors - For Settlement W/Adjustors, all the adjustors are applied consistent with the provisions of the Settlement and as described in Appendix B.
11. APS' off-system sales amount contained in the base case (\$29.2 million) is assumed to stay constant through all the scenarios.

## **Appendix B: Miscellaneous Adjustor and Franchise Fee Calculations**

1. CRCC – The CRCC rate contained in the Settlement, \$0.000338 per kWh, is applied to the number of kWh used in a given scenario. There were slightly different CRCC amounts included in Staff's direct testimony, APS' original testimony, and the Settlement. For purposes of these bill comparisons, the Settlement CRCC level is used, as the difference resulting from the other amounts is minimal.
2. TCA – The Settlement provides for the TCA to take effect when the transmission component of retail rates exceeds the test year base of \$0.000476 per kWh by five percent. For use in the customer bill estimates, the TCA rate is assumed to exceed the test year base by 20 percent, resulting in a TCA rate of \$0.0000952 per kWh.
3. EPS – The EPS surcharge is set at \$0.35 per month, per the Settlement, which provides that the initial charge will be the same as contained in the current EPS surcharge tariff, including caps.
4. DSM – The DSM adjustor rate is set assuming that APS will spend at the full \$16 million dollar level in 2005, with \$10 million built into base rates and \$6 million collected through the DSM adjustor, resulting in a \$0.000256 per kWh, based on retail sales of 23,473,646,000 kWh.
5. Franchise fee – APS pays various percentage franchise fees to various municipalities in Arizona. Currently the franchise fees are built into APS' base rates, meaning in effect all APS customers are paying the same franchise fee, regardless of which municipality they reside or do business in. Under the Settlement, the franchise fee would be separated out of base rates and would be applied to the customer bill at the last stage of calculating the customer bill, after the various adjustor rates have been applied. This new way of applying the franchise fee is more accurate, as customers will now be paying the actual franchise fee in their location, rather than a system average built into rates. But this change in the franchise fee calculation adds a wrinkle to the comparison of customer bills today and under various rate proposals. To present today's rates and the various rate proposals on a consistent footing, Staff has removed the franchise fee from today's rates, as well as from the rates under Staff's original case and RUCO's original case, since these are calculated off today's rates. This results in the total base rates for all rate proposals not reflecting franchise fees. The franchise fees are then added back in to all the rate proposals at the appropriate point later in the customer bill calculations.

The franchise fee used for all rate proposals other than today's rates is the Phoenix franchise fee of 1.83 percent. This franchise fee is slightly higher than the average franchise fee used in today's rates. This results in the franchise fee being applied to all the other rate proposals being a small amount higher than the franchise fee being applied to the today's rates calculation. In the scenarios the differential is generally between \$0.15 and \$0.40 extra being applied to the new rate proposals due to the higher franchise fees used.

### Appendix C: Scenario PSA Bank Balance Calculations

Staff has run 30 scenarios, 15 with the 738 kwh June 2004 average usage level and 15 with the 460 kwh June 2004 median usage level. Shown below are two tables summarizing the basic balancing account calculations attendant with each scenario.

April 2006 PSA Balancing Account Calculations										
Based upon 2003 APS data, adjusted for gas price and gas volume parameters. In cases where the gas volume is adjusted, the native load sales are adjusted correspondingly										
Interest is not included in calculations. Off system sales are incorporated into the Net Fuel and PP Costs line.										
base cost of fuel in settlement \$0.020743 per kwh										
	1,16	2,17	3,18	4,19	5,20	6,21	7,22	8,23		
Annual Gas Cost (\$000)	\$248,400	\$353,300	\$326,700	\$171,900	\$429,900	\$496,800	\$706,700	\$653,400		
Annual Gas Volume (000 MMBtu)	42,985	42,985	42,985	42,985	42,985	85,970	85,970	85,970		
Average Cost of Gas (\$/MMBtu)	\$5.78	\$8.22	\$7.60	\$4.00	\$10.00	\$5.78	\$8.22	\$7.60		
Annual Native Load Sales (MWH)	25,208,287	25,208,287	25,208,287	25,208,287	25,208,287	29,746,000	29,746,000	29,746,000		
2005 Net Fuel and PP Costs	\$524,600,000	\$629,500,000	\$602,900,000	\$448,100,000	\$706,100,000	\$773,100,000	\$982,900,000	\$929,600,000		
2005 Costs Recovered Thru Base Cost	\$522,895,497	\$522,895,497	\$522,895,497	\$522,895,497	\$522,895,497	\$617,021,278	\$617,021,278	\$617,021,278		
Over/Undercollection (negative = overcollected)	\$1,704,503	\$106,604,503	\$80,004,503	-\$74,795,497	\$183,204,503	\$156,078,722	\$365,878,722	\$312,578,722		
Balance After 90/10 Application	\$1,534,052	\$95,944,052	\$72,004,052	-\$67,315,948	\$164,884,052	\$140,470,850	\$329,290,850	\$281,320,850		
Balance per kwh of Native Load Sales	\$0.00006	\$0.00381	\$0.00286	-\$0.00267	\$0.00654	\$0.00472	\$0.01107	\$0.00946		
Balance per kwh Captured Within \$0.004 band	\$0.00006	\$0.00381	\$0.00286	-\$0.00267	\$0.00400	\$0.00400	\$0.00400	\$0.00400		
Balance per kwh Remaining Outside \$0.004 band	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00254	\$0.00072	\$0.00707	\$0.00546		
Balancing Account Balance	\$0	\$0	\$0	\$0	\$64,050,904	\$21,486,850	\$210,306,850	\$162,336,850		
Amount Balancing Account Exceeds \$50 million trigger	\$0	\$0	\$0	\$0	\$14,050,904	\$0	\$160,306,850	\$112,336,850		

	Scenario Numbers						
	9,24	10,25	11,26	12,27	13,28	14,29	15,30
Annual Gas Cost (\$000)	\$343,800	\$859,700	\$332,500	\$472,900	\$437,200	\$230,100	\$575,300
Annual Gas Volume (000 MMBtu)	85,970	85,970	57,527	57,527	57,527	57,527	57,527
Average Cost of Gas (\$/MMBtu)	\$4.00	\$10.00	\$5.78	\$8.22	\$7.60	\$4.00	\$10.00
Annual Native Load Sales (MWH)	29,746,000	29,746,000	26,743,000	26,743,000	26,743,000	26,743,000	26,743,000
2005 Net Fuel and PP Costs	\$620,100,000	\$1,135,900,000	\$608,700,000	\$749,100,000	\$713,400,000	\$506,300,000	\$851,500,000
2005 Costs Recovered Thru Base Cost	\$617,021,278	\$617,021,278	\$554,730,049	\$554,730,049	\$554,730,049	\$554,730,049	\$554,730,049
Over/Undercollection (negative = overcollected)	\$3,078,722	\$518,878,722	\$53,969,951	\$194,369,951	\$158,669,951	-\$48,430,049	\$296,769,951
Balance After 90/10 Application	\$2,770,850	\$466,990,850	\$48,572,956	\$174,932,956	\$142,802,956	-\$43,587,044	\$267,092,956
Balance per kwh of Native Load Sales	\$0.00009	\$0.01570	\$0.00182	\$0.00654	\$0.00534	-\$0.00163	\$0.00999
Balance per kwh Captured Within \$0.004 band	\$0.00009	\$0.00400	\$0.00182	\$0.00400	\$0.00400	-\$0.00163	\$0.00400
Balance per kwh Remaining Outside \$0.004 band	\$0.00000	\$0.01170	\$0.00000	\$0.00254	\$0.00134	\$0.00000	\$0.00599
Balancing Account Balance	\$0	\$348,006,850	\$0	\$67,960,956	\$35,830,956	\$0	\$160,120,956
Amount Balancing Account Exceeds \$50 million trigger	\$0	\$298,006,850	\$0	\$17,960,956	\$0	\$0	\$110,120,956